material coupled to opposite sides of the inner layer, and a two-dimensional array of a plurality of addressable through-holes, the through-holes being disposed substantially perpendicularly to the planar surfaces;

b. loading a first sample into a first set of through-holes of the two-dimensional array, the first sample being a liquid;

c. retaining the first sample in the first set of through-holes by surface tension;

d. adding a second sample into a specified through-hole, the specified through-hole having at least one adjacent through-hole containing a sample other than the second sample, the specified through-hole further coinciding with one of the first set of at least one of the though-holes thereby permitting a reaction between the first sample and the secondsample; and

e. characterizing the reaction in the through-hole in terms of the specified properties.

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5. (twice amended) A method according to claim 1, wherein the first sample in liquid form includes at least one of a target in solution and a target in suspension.

6. (twice amended) A method according to claim 1, wherein at least one of a target in solution and a target in suspension includes a biological material.

7. (twice amended) A method according to claim 1, wherein the step of loading a first sample includes drawing the sample from a planar surface by capillary action.

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11. (twice amended) A method according to claim 1, further including maintaining a humid atmosphere for preventing evaporation of the first sample.

12. (twice amended) A method according to claim 1, further including coating the liquid sample with a monolayer for preventing evaporation of the first sample.

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14. (twice amended) A method for characterizing a plurality of samples <u>of distinct composition</u>, the method comprising:

a. providing a platen having a set of through-holes comprising a two dimensional array with a density of at least one through-hole per square millimeter;

b. loading a specified sample into each through-hole of a first subset of the set of through-holes;

c. loading a specified sample into each through-hole of a first subset of the set of through-holes;

d. loading a second sample into at least one through-hole adjacent to a hole of the first subset of through-holes in such a manner as to substantially prevent capillary outmigration of the second sample; and

e. characterizing a property of the specified sample.

16. (twice amended) A method for analyzing a plurality of samples, the system comprising:

a. loading the samples into a plurality of through-holes disposed in a platen in a two-dimensional array;

b. illuminating a set of more than one of the plurality of through-holes with optical radiation; and

c. separately analyzing the optical radiation emanating from each through-hole of the set of more through-holes than one using an optical arrangement including a detector array.

REMARKS

Claims 1, 3-17, 41, and 44 are pending in the application. Claims 1, 14, 16 and 41 are independent claims, while claims 3-13 depend directly or indirectly from claim 1, claim 15 depends from claim 14, claim 17 depends from claim 16, and claim 44 is multiply dependent upon claims 14, 16, and 41.

Claims 1, 4-15, 41 and 44 stand rejected under 35 U.S.C. 112, first paragraph, as inadequately described. Claims 16, 17, and 44 stand rejected under 35 U.S.C. 102(b) and being clearly anticipated by de Macario (4,682,890) whereas all pending claims but 16 and 17 stand rejected under 35 U.S.C. 103(a) as unpatentable over de Macario and further in view of Davis.